

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A circuit comprising:  
a diode;  
a first transistor coupled in series with the diode;  
a first resistor coupled in series with the transistor;  
a second transistor having a control node coupled to a control node of the first transistor and coupled to a node between the first transistor and the first resistor; and  
a second resistor coupled in series with the second transistor ~~such that a current in the second transistor is independent of a voltage applied across the diode, the first transistor, and the first resistor;~~  
a bias generator circuit coupled to the second transistor and coupled to the second resistor; and  
wherein the bias generator circuit comprises:  
a first branch coupled to the second transistor and coupled to the second resistor; and  
a second branch coupled to the first branch by current mirrors.

2. (Cancelled) The circuit of claim 1 further comprising a bias generator circuit coupled to the second transistor and coupled to the second resistor.

3. (Cancelled) The circuit of claim 2 wherein the bias generator circuit comprises:  
a first branch coupled to the second transistor and coupled to the second resistor; and  
a second branch coupled to the first branch by current mirrors.

4. (Cancelled) The circuit of claim 2 wherein the bias generator circuit includes a third resistor coupled between the second resistor and a voltage supply node.

5. (Currently Amended) The circuit of claim 3 1 wherein the first branch includes a third resistor coupled between the second resistor and a voltage supply node.

6. (Original) The circuit of claim 1 wherein the first and second transistors are bipolar transistors.

7. (Original) The circuit of claim 1 wherein the first and second transistors are PNP bipolar transistors.

8. (Currently Amended) A circuit comprising:  
a constant voltage drop device;  
a first transistor coupled in series with the constant voltage drop device;  
a first resistor coupled in series with the transistor;  
a second transistor having a control node coupled to a control node of the first transistor and coupled to a node between the first transistor and the first resistor; and  
a second resistor coupled in series with the second transistor ~~such that a current in the second transistor is independent of a voltage applied across the constant voltage drop device, the first transistor, and the first resistor;~~  
a bias generator circuit coupled to the second transistor and coupled to the second resistor; and  
wherein the bias generator circuit comprises:  
a first branch coupled to the second transistor and coupled to the second resistor; and  
a second branch coupled to the first branch by current mirrors.

9. (Cancelled) The circuit of claim 8 wherein the constant voltage drop device is a diode.

10. (Cancelled) The circuit of claim 8 further comprising a bias generator circuit coupled to the second transistor and coupled to the second resistor.

11. (Cancelled) The circuit of claim 10 wherein the bias generator circuit comprises:

*Contd*  
*C1*  
a first branch coupled to the second transistor and coupled to the second resistor; and  
a second branch coupled to the first branch by current mirrors.

12. (Cancelled) The circuit of claim 10 wherein the bias generator circuit includes a third resistor coupled between the second resistor and a voltage supply node.

13. (Currently Amended) The circuit of claim ~~11~~ 8 wherein the first branch includes a third resistor coupled between the second resistor and a voltage supply node.

14. (Original) The circuit of claim 8 wherein the first and second transistors are bipolar transistors.

15. (Original) The circuit of claim 8 wherein the first and second transistors are PNP bipolar transistors.

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